

Secondary Storage

SECONDARY STORAGE — STRUCTURE

hard disk drives

solid state drive

RAID structure

tertiary storage devices (DVD, magnetic tape)

HARD DISK DRIVES — ANATOMY

stack of magnetic platters

disk arms contain disk heads per recording surface, read/write to platters

storage:

- platters divided into concentric *tracks*
- *cylinder*: stack of tracks of fixed radius
- tracks of fixed radius divided into *sectors*

FLASH MEMORY

advantages:

- solid state
- lower power consumption/heat
- no mechanical seek

disadvantages:

- limited number of overwrites
- limited durability

RAID

idea: improve performance + reliability of storage system by storing redundant data

